

WHAT IS CLAIMED IS:

1. A chain-structure metal powder comprising nickel or an alloy thereof,
the particles being integrated in chain-structure particle aggregates,
5 wherein the average diameter of the chain-structure particle aggregates is in
the range of 30 nm to 200 nm, and the average length thereof is in the range
of 0.5 μm to 50 μm .
2. The chain-structure metal powder according to Claim 1, wherein the
10 oxygen content of the metal powder and the specific surface area thereof
measured by a BET adsorption method satisfy $0.17 \leq x/s \leq 0.83$, in which x
represents the oxygen content (percent by weight) and s represents the specific
surface area (m^2/g).
- 15 3. A method of manufacturing a chain-structure metal powder,
comprising:
precipitating the metal powder by a reaction performed in an aqueous solution
in which nickel ions, complex ions, and titanium ions containing trivalent
titanium ions and tetravalent titanium ions are present,
20 wherein, in the aqueous solution before the reaction starts, the concentration
(Ni) of the nickel ions and the concentration (Ti^{3+}) of the trivalent titanium
ions satisfy $\text{Ti}^{3+} \geq 2.5 \times \text{Ni}$, and the concentration (Ti^{3+}) of the trivalent titanium
ions and the concentration (Ti^{4+}) of the tetravalent titanium ions satisfy

$$0.15 \leq \text{Ti}^{3+}/\text{Ti}^{4+} \leq 30.$$

4. The method of manufacturing a chain-structure metal powder, according to Claim 3, wherein the complex ions are citrate ions.

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5. A conductivity-afforded material comprising:

a chain-structure metal powder composed of nickel or an alloy thereof in which particles thereof are integrated together to form chain-structure particle aggregates, and

10 a resin, a rubber, or an adhesive which is mixed with the chain-structure metal powder,

wherein the average diameter of the chain-structure particle aggregates is in the range of 30 nm to 200 nm, and the average length thereof is in the range of 0.5 μm to 50 μm .

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6. A conductivity-afforded material comprising:

the chain-structure metal powder according to Claim 5; and

a resin, a rubber, or an adhesive which is mixed therewith,

wherein the oxygen content of the metal powder and the specific surface area

20 thereof measured by a BET adsorption method satisfy $0.17 \leq x/s \leq 0.83$, in which x represents the oxygen content (percent by weight) and s represents the specific surface area (m^2/g).

7. The conductivity-afforded material according to Claim 5, wherein the content of the chain-structure metal powder is 15 percent by volume or less.